Page 1 of 6

PM-0924 (REV 7/2014)

CLASSIFICATION TITLE MAINTENANCE MECHANIC	DISTRICT/DIVISION/OFFICE	
WAINTENANCE WECHANIC	03/709 Sutter/Sierra Region	
WORKING TITLE	POSITION NUMBER	EFFECTIVE
CALTRANS MAINTENANCE MECHANIC	903-709-6940	Nov, 2014

As a valued member of the Caltrans team, you make it possible for the Department to provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability. Caltrans is a performance-driven, transparent, and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork.

GENERAL STATEMENT:

Working under the direction of a Caltrans Maintenance Area Superintendent, performs a variety of skilled work in the operation, maintenance and repair of heating, air conditioning, ventilation, overhead doors, lighting, power, and water treatment. May be required to get a water treatment certification; a backflow license and may be required to change out irrigation valve and controllers, may also be required to work with maintenance crews at times. This position is required to travel throughout the Sutter/Sierra Region; incumbent must possess a valid driver's license.

TYPICAL DUTIES:

Percentage Essential (E)/Marginal (M)

- 30% (E) Operates, repairs, and maintains HVAC pumps, valves and appurtenances, refrigerant compressors, condensers, evaporators, traps, transfer pumps, expansions valves, stop valves, and float valves, together with all refrigerant lines and devices used to control temperatures in maintenance buildings. Operates, maintains, and repairs air compressors, together with distribution lines and all valves and devices for air control; operates, maintains and repairs all natural and manufactured gas distribution lines and manufacturing systems including all valves and control devices for fuel tanks and maintenance facilities; operates maintains, and repairs water filters, softeners, piping and pumps used in conjunction with water filters, softeners, piping and pumps used in conjunction with water distribution, including all sinks, showers, and toilet bowls, supply lines and water lines at the roadside rest areas and maintenance facilities. Does cement work, painting, window installation and glazing. Repairs overhead doors. Maintains and repairs hydraulic hoist and steam cleaners.
- 30% (E) Operates, repairs, and maintains all types of motors, engines, and emergency generators used to power pumps, compressors, and fans; repairs and maintains

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PM-0924 (REV 7/2014)

Page 2 of 6

singlephase and multiphase electrical circuits up to 480 volts; repairs and maintains electrical transformers, motors, controllers, machinery, fixtures, and appliances and ice machines. Repairs and maintains electronic systems, such as clocks, automatic systems, security systems, energy management systems, and equal potential grounding; calibrates control systems for air conditioning, refrigeration, heating, and ventilation systems.

- 20% (E) Operates, maintains, and repairs water and sewage systems; inspects and trouble shoots electric and mechanical systems and equipment to identify repairs needed; performs minor building maintenance and repairs; plans layouts and estimate costs of electrical, mechanical, and electronic systems; requisitions parts, supplies and equipment. Calculates systems requirements to provide estimates for modification or replacement systems.
- 10% (E) Work with city, county and private water surveyors to provide required backflow prevention testing reports and information regarding backflow related problems. Maintains an accurate database to provide district-wide information on backflow prevention assemblies. Orders backflow repair parts and maintains a working inventory. Maintains all equipment and any required certifications. Works on plumbing up to six inches diameter and repairs accident damage.
- 10% (E) Record Keeping and Reporting: pre and post operative equipment checks, fuel purchases/usage, Material usage reports, visa card purchase records. Operate and maintain laptop computer & desk computer reports and programs used for remote operation of facilities boiler/heater systems.

SUPERVISION EXERCISED OVER OTHERS

This position does not supervise but may lead other employees such as Maintenance Workers or Equipment Operators assigned to assist in carrying out specific jobs; also inmates and workers from other agencies such as CCC.

KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS

Knowledge of: methods, materials, and equipment used in the operation and repair of plumbing, heating, electrical, water and sewer systems; materials, methods, and tools used in the repair of mechanical equipment and in miscellaneous building maintenance and repair work and skill in the performance of such work; Safety orders of the Division of Industrial Safety dealing with heating, electrical, plumbing, and other mechanical systems.

Ability to read, interpret, and work from plans, drawings, and specifications; estimates materials needed; keep records, follow oral and written directions. Get along well with others, read and write at a level appropriate to carrying out job functions as stated above and superior mechanical ability.

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Page 3 of 6

PM-0924 (REV 7/2014)

Ability to work safely around high-density traffic.

Ability to work effectively alone or with others.

Must be able to analyze various work situations accurately and make sound decisions.

CONSEQUENCE OF ERROR/RESPONSIBILITY FOR DECISIONS

Error may endanger co-workers and/or the public. Error may also cause a waste of time and waste of tax dollars through extra expense in the maintenance of highways, or damage to State equipment and facilities.

PUBLIC AND INTERNAL CONTACTS

Required to maintain good relations with members of the public and employees from the same and other departments within Caltrans, as well as other agencies. May have contact with other public agencies and private individuals almost daily in the course of assignment. Contact may be with hostile public, and employee is expected to maintain a favorable public image for the State.

PHYSICAL, MENTAL AND EMOTIONAL REQUIREMENTS

Much of this position is labor intensive. Incumbent must have physical ability to react quickly to errant motorist and do strenuous hand and mechanical labor.

Note: For standing, walking and sitting, along with several other activities, typical duties are used as examples in various situations to give ranges for the activities. Generally, activities can be broken down into operating mechanical equipment and tools 45% of the time on a year-around basis. The remainder of the activity is labor.

<u>Standing, Sitting and Walking</u> - Standing and walking using hand tools 50%: Sitting and driving 20%. Twisting and turning, climbing, shoveling 30%.

<u>Lifting (Floor to Bench to Floor)</u> – Items listed may be any of the following but not limited to lifting tools, tools box, mechanical devices such as pumps and motors.

<u>Carrying</u> – Repair material, which may weigh 50 lbs., must be carried from storage areas to vehicles and from vehicles to job sites, which may be on uneven terrain. Tools are carried a few feet to 100 yards and weigh a few ounces to 50 lbs. each. Various items carried include any type of building material supplies, specific tools to accomplish job, tool box, small motors, pumps, lumber, plumbing material and supplies, and may be carried on uneven terrain.

Overhead Reaching – Overhead work includes pulling yourself up into many types of work environments from 0 to 30 times per day, working off a ladders, servicing equipment or

PM-0924 (REV 7/2014)

Page 4 of 6

doing mechanical repairs, signaling other workers, and throwing/loading material in equipment.

Other Reaching – Setting cones, lubing and checking equipment, shoveling, driving, using digging bar, shifting, holding tools or material; may be done on a continuous basis.

<u>Pushing/Pulling</u> – Shoveling, opening garage doors, hooking up trailers, pulling on hoses, tightening and loosening nuts on bolts. Installing and removing items such as pumps, small motors; pulling down on post drivers.

<u>Twisting</u> - The incumbent twist while driving equipment. Other twisting is done while dragging brush, shoveling, raking and setting down and picking up material, supplies, and tools.

<u>Climbing/Balancing</u> – Climbing is done in and out of work areas, such as rafters, attics, up and down ladders and used in fine manipulation of a ladders, stairways, (often with a load of material or supplies); onto steps and walkways. One example would be to climb up a ladder carrying supplies to work on an air conditioning unit on a roof or in attic area.

Bending/Crouching/Squatting/Crawling – The incumbent often bends continuously throughout the day while operating tools and performing physical labor. All of these activities are necessary when picking up and laying down tools and material. May also crawl around and underneath job site area while checking and servicing facilities, and putting on or removing parts.

<u>Simple Grasping</u> – This activity is necessary about 95% of the shift; climbing in/out and around job areas, operating and repair of equipment, using hand tools and handling materials.

<u>Fine Manipulation</u> – This occurs less than 2% of a day and usually while writing reports, reading through installation material or manipulating the knobs and levers on the tools. A higher percentage of the time would be saw, drill and hand tool operation.

<u>Importance of Hearing and Sight</u> – both are essential on the job because the Maintenance Mechanic often must hear directions and equipment, and must see in order to perform his/her duty safely.

Hearing should be adequate to hear warning devices used for worker safety, i.e. look out alarm devices, sensors, including vehicle horns used to warn employees of eminent danger at the work site. Corrected hearing is acceptable.

Sight needs to be corrected to the State of California Department of Motor Vehicles standards for safe vehicle driving. Night vision must be good for safety when working after dark.

PM-0924 (REV 7/2014)

WORK ENVIRONMENT

Page 5 of 6

Required to work in a wide range of sometimes extreme conditions, including heat up to 120 degrees, cold to –15 degrees, strong winds, rain, sleet, and snow.

During the winter months the workweek is normally 5/8-hour days. During the summer months the workweeks may be changed to 4/10-hour days.

May be required to work overtime due to storms, emergencies, special work projects, or when the Supervisor deems that it is in the best interest of the State to work overtime.

Personal safety requirements include:

- A. Work boots, in good and sturdy condition, must be worn to provide foot and ankle support protection.
- B. Either long or short sleeved shirts provided by Caltrans, or a safety vest is to be worn over non-safety shirts or coats.
- C. Long pants. No shorts or cutoffs.
- D. Provided safety gear; hard hat, safety glasses, hearing protection devices, face shields, gloves, respirator, chaps, or other safety gear must be worn when environment warrants such items or as required by the Department.

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PM-0924 (REV 7/2014)

Page 6 of 6

I have read, and understand the duties listed above and can perform them either with or without reasonable accommodation. (If you believe you may require reasonable accommodation, please discuss this with your hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor who will discuss your concerns with the Reasonable Accommodation Coordinator.)

EMPLOYEE (Print)	DATE
EMPLOYEE (Signature)	DATE

I have discussed with and provided a copy of this duty statement to the employee named above.

SUPERVISOR (Print)	DATE
SUPERVISOR (Signature)	DATE